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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,721	03/16/2004	Hiromichi Tsugami	Q80422	1030

23373 7590 03/23/2005

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WASHINGTON, DC 20037

EXAMINER
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CASTRO, ARNOLD

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/800,721	<b>Applicant(s)</b> TSUGAMI ET AL.	
	<b>Examiner</b> Arnold Castro	<b>Art Unit</b> 3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see remarks filed January 6, 2005,, with respect to the rejections of claims 1-7 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new grounds for rejections are made in view of newly discovered art Tamaki (US/5,101,784).

### ***Claim Rejections - 35 USC § 112***

2. The rejections under 35 USC § 112 have been withdrawn the meaning the term module having been explicitly and singularly define in applicants remarks filed January 6, 2005. As understood to mean the pitch circle diameter in mm divided by the number of teeth.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamaki US/5,101,784.

5. Tamaki discloses an intake throttle valve apparatus, comprising: an intake throttle valve including a valve housing, a valve shaft rotatably supported within said valve housing and a valve element fixedly mounted on said valve shaft for changing an opening area of an intake passage formed internally of said valve housing, a reduction

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gear mechanism operatively coupled to said intake throttle valve, and a driving motor operatively coupled to said reduction gear mechanism so that a driving force of said driving motor is transmitted to said valve shaft through the medium of said reduction gear mechanism for thereby changing said opening area of said intake passage through rotation of said valve element, wherein said reduction gear mechanism is composed of an output gear (5b) fixedly secured to a motor shaft of said driving motor and an input gear (5a) fixedly secured to said valve shaft at one end thereof and directly meshing with said output gear, wherein said output gear is so mounted on said motor shaft that a gear-tooth portion is distanced from the tip end of said motor shaft in the axial direction.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 5, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki US/5,101,784.

Tamaki applies as in claim 1 above,

In regards to claims 2 and 8 Tamaki does not expressly disclose the module or the number of teeth and/or the reduction ratio as claimed.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to design the gearing arrangement as claimed because Applicant has not disclosed that the claim range or reduction ratio

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provides an advantage, is used for a particular purpose, or solves a stated problem.

Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235.

In regards to claim 5, the out put gear is disclosed as secured to shaft it would be obvious to one of ordinary skill in the art to secure the gear to shaft via any means know in the art such as press-fitting, molding, gluing, welding, clipping with key, screwing etc. The method of securing is an obvious matter of design choice the specification does not point to any particular benefit to the use of press fitting over any other known methods of securing.

In regards to claim 7, wherein it is claimed the throttle valve apparatus is designed to be installed on a gasoline engine car whose cylinder volume is 1.0 liter or less. The throttle valve of Kanazawa et al. discloses it is for use in a car as is applicant's invention. Conventional automobile engines range from 7.4 liters to 1.5 liters. when divided by number of cylinders the cylinder volumes fall in a range from 0.925 to .375 liters all under 1 liter. Therefore, the throttle valve of Kanazawa et al. was inherently designed for 1.0 liter or less cylinder volume.

1. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki (US/5,101,784) as applied to claim 1 above, and further in view of Makino et al. (US/4,690,119).

Makino et al. discloses a valve apparatus wherein the output gear is fabricated through a sintering process see column 3, lines 42-52.

At the time of invention it would have been obvious to make the output gear of throttle valve of Tamaki as applied to claim 1 above out of sintering process as shown in Makino et al.

Motivation to do so is given in Makino et al., to allow the device to operate smoothly with no supply of lubricating oil.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki (US/5,101,784) as applied to claim 1 above, and further in view of Torii et al. (US/6,626,421)

Torii et al. discloses an electrical throttle control valve wherein the housing is made of resin. See figure 8, column 9, lines 35-44.

At the time of invention it would have been obvious to make the housing of Tamaki's throttle valve out of resin as taught by Torii et al.

Motivation to do so is given in Torii et al. that is to decrease the weight and cost of the valve.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Imamura et al. is a throttle having similar structure as Tamaki US/5,101,784.

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold Castro whose telephone number is (571) 272-4839. The examiner can normally be reached on Mon, Tues, Wed, Thurs 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yuen Henry can be reached on (571)-272-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnold Castro  
Examiner  
Art Unit 3747

AC



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